



# PUBLIC NOTICE

Federal Communications Commission  
445 12<sup>th</sup> St., S.W.  
Washington, D.C. 20554

News Media Information 202 / 418-0500  
TTY 202 / 418-2555  
Internet: <http://www.fcc.gov>

**DA 09-2518**  
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## **DATA SOUGHT ON USES OF SPECTRUM** **NBP Public Notice # 26**

### **PLEADING CYCLE ESTABLISHED**

**GN Docket Nos. 09-47, 09-51, 09-137**

**Comment Date: December 21, 2009**

In responses to the Notice of Inquiry (NOI) seeking comment on developing the National Broadband Plan<sup>1</sup> and discussion at related workshops, parties have expressed concern that the United States will not have spectrum sufficient to meet the demand for wireless broadband services in the near future and have urged the Commission to make available more spectrum for commercial uses. In response, the FCC is reviewing various spectrum bands to understand if all or a portion of the spectrum within these bands could be repurposed for wireless broadband services.

After a review of the responses to the Spectrum for Broadband Public Notice,<sup>2</sup> we seek more specific data on the use of spectrum currently licensed to broadcast television stations. This inquiry takes into account the value that the United States puts on free, over-the-air television, while also exploring market-based mechanisms for television broadcasters to contribute to the broadband effort any spectrum in excess of that which they need to meet their public interest obligations and remain financially viable. This inquiry also seeks to understand what processes and incentives could ensure continuing spectral efficiency gains for broadcasters going forward.

### **A. General Approach to Spectrum Assessment**

1. What factors should the Commission consider when examining and comparing the benefits of spectrum used for over-the-air television broadcasting and those of spectrum used for wireless broadband services?
2. What would be the impact to the U.S. economy if insufficient additional spectrum were made available for wireless broadband deployment, in terms of investments, jobs, consumer welfare, innovation, and other indicators of global leadership?

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<sup>1</sup> See generally *A National Broadband Plan for Our Future*, GN Docket No. 09-51, Notice of Inquiry, 24 FCC Rcd 4342 (2009) (*National Broadband Plan NOI*).

<sup>2</sup> See *Comment Sought on Spectrum for Broadband*, GN Dockets 09-47, 09-51, 09-137, NBP Public Notice #6, DA 09-2100 (rel. Sept. 23, 2009), available at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-09-2100A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-2100A1.pdf).

3. What would be the impact to the U.S. economy and public welfare if the coverage of free over-the-air broadcast television was diminished to accommodate a repacking of stations to recover spectrum?
4. How do television broadcasters use the capabilities of digital television today? Please provide information on data rate allocations to HD, SD, multicast streams, bandwidth leasing arrangements, etc. and the business rationale behind these choices.
5. How do broadcasters plan to use licensed spectrum in the future?
  - a. What innovations in applications, services, or business models will create synergies between broadband and broadcast services, or other new value from currently licensed spectrum?
  - b. How should the Commission evaluate the future economic value of over-the-air digital television and new capabilities to offer mobile TV broadcasting? How does the financial community in general view that future value?
6. Consumers are migrating away from mass-market “appointment” viewing to more fragmented and time-shifted viewing. What impact will this trend have on the television broadcasting industry? What can the Commission do to help broadcasters participate in this evolution?
7. In the Telecommunications Act of 1996<sup>3</sup>, Congress instructed the Commission to conduct an evaluation of the advanced television services program within 10 years after the date the Commission first issued licenses for such services. Subsection (1), which requires an assessment of the willingness of consumers to purchase the television receivers necessary to receive broadcasts of advanced television services may no longer be pertinent in light of the completion of the digital transition. Please comment on subsections (2) and (3) of Section 336(g) that require the Commission to conduct:
  - a. an assessment of alternative uses, including public safety use, of the spectrum used for advanced television broadcasts; and
  - b. an evaluation of the extent to which the Commission may be able to reduce the amount of spectrum assigned to advanced television broadcast licensees.<sup>4</sup>

## **B. Potential Approaches to Increase Spectrum Availability and Efficiency**

There may be opportunities for broadcasters to share 6 MHz channels in a market without significantly disrupting the free over-the-air television service that consumers enjoy today. Stations sharing channels may be able to trade capacity (in Mbps) between or among themselves. We note that the number of broadcasting stations sharing a single 6 MHz channel would affect the number and type of signals that each can broadcast. Spectrum sharing arrangements may also entail geographic

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<sup>3</sup> See Telecommunications Act of 1996, Pub. L. No. 104-104, §336(g), 110 Stat. 56 (1996) (codified at 47 U.S.C. Section 336 (g)).

<sup>4</sup> See also Letter from Steve Largent, President and CEO, CTIA – The Wireless Association, and Gary Shapiro, President and CEO, Consumer Electronics Association, on behalf of Wireless Broadband Proponents, to FCC Chairman Julius Genachowski and Commissioners Michael J. Copps, Robert M. McDowell, Mignon Clyburn, and Meredith Attwell Baker, (Nov. 17, 2009)(requesting the FCC begin a proceeding to investigate potential reallocation of broadcast spectrum pursuant to Section 336(g)).

consolidation, if broadcasters who previously used different transmitting sites share spectrum at a single transmitter closer to the center of densely populated areas.

1. What are the advantages of a channel-sharing approach to broadcasters' business? What are the disadvantages of this approach? What are the technical and business requirements to enable successful channel sharing?
2. What opportunities exist to free up broadcast spectrum through greater collocation of transmission facilities closer to the center of densely populated areas? There are numerous examples of broadcasters collocating facilities already. What are the financial and other benefits of collocation? What are the tradeoffs for broadcast TV stations and consumers in terms of signal coverage and local programming efforts?
3. How will video capabilities improve over time using current MPEG-2 and 8-VSB technologies? What improvements could be gained by deployment of next generation technologies over that currently achieved under the ATSC standard? What would be required for broadcasters and consumers to transition to more advanced technologies?
4. To what extent would establishing antenna and receiver standards facilitate spectral efficiency and improved reception in broadcasting? What other actions could the FCC take to enable broadcasters to make more efficient use of their spectrum?
5. What percentages of broadcast programming streams are transmitted to MVPDs by over-the-air broadcast? What percentage of MVPD subscribers receive their broadcast TV stations via an over-the-air broadcast link (either directly or through the MVPD)? What would be the costs to replace over-the-air delivery to MVPDs and consumers with other means (fiber, microwave)?

#### **C. Broadcasting and the Public Interest**

Broadcasters have historically played an important role in advancing public interests through free over-the-air broadcast TV. What are the benefits of free, over-the-air television broadcasting, in particular with respect to public awareness of emergency information, local news, political discourse, and education?

#### **D. Market Mechanisms for Spectrum Contribution**

What market-based or other incentive mechanisms should the Commission consider to enable broadcasters to choose whether or not to make any spectrum (excess or otherwise) available for reallocation to wireless broadband use?

This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. See 47 C.F.R. §§ 1.1200, 1.1206. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented generally is required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but-disclose proceedings are set forth in section 1.1206(b) of the Commission's rules, 47 C.F.R. § 1.1206(b).

We understand that some of the information provided in response to this Public Notice may be considered confidential. Responses may be submitted pursuant to the Protective Order released in GN

Docket Nos., 09-47, 09-51, and 09-137 on November 16, 2009.<sup>5</sup> Parties wishing to file materials with a claim of confidentiality should follow the procedures set forth in 47 CFR § 0.459. Confidential submissions may not be filed via ECFS. Redacted versions of confidential submissions may be filed via ECFS.

- **All comments should refer to GN Docket Nos. 09-47, 09-51, and 09-137.**
- **Please title comments responsive to this Notice as “Comments – NBP Public Notice # 26.**
- **Filers using the Commission’s Electronic Comment Filing System (ECFS) should enter the following text in the “Custom Description” field in the “Document(s)” section of the ECFS filing page: “Comments – NBP Public Notice # 26”.**
- **We strongly encourage parties to develop responses to this Notice that adhere to the organization and structure of the questions in this Notice.**

Comments may be filed using (1) the Commission’s Electronic Comment Filing System (ECFS), (2) the Federal Government’s eRulemaking Portal, or (3) by filing paper copies.<sup>6</sup> Comments can be filed through the Commission’s ECFS filing interface located at the following Internet address: <http://www.fcc.gov/cgb/ecfs/>. Comments can also be filed via the Federal eRulemaking Portal: <http://www.regulations.gov>.<sup>7</sup> Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties who choose to file by paper must file an original and four copies of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission’s contractor will receive hand-delivered or messenger-delivered paper filings for the Commission’s Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554.

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<sup>5</sup> *A National Broadband Plan for Our Future*, GN Docket No. 09-51, Protective Order, DA 09-2415 (WCB, rel. Nov. 16, 2009).

<sup>6</sup> See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

<sup>7</sup> Filers should follow the instructions provided on the Federal eRulemaking Portal website for submitting comments.

People with Disabilities: To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at (202) 418-0530, (202) 418-0432 (TTY).

For further information about this Public Notice, please contact Phil Bellaria at (202) 418-3633.